

# Science Toolkit: Grade 5 Objective 1.B.1.c

Student Handout: Science: Grade 5 Objective 1.B.1.c

Standard 1.0 Skills and Processes

Topic B. Applying Evidence and Reasoning

Indicator 1. Seek better reasons for believing something than "Everybody knows that..." or "I just know" and discount such reasons when given by others.

Objective c. Review different explanations for the same set of observations and make more observations to resolve the differences.

Selected Response (SR) Item

Question

Use the information and the data list below to answer the following:

Two students researched how coal, a nonrenewable resource, is used. The students learned that most coal is burned to produce electricity. Some coal is used to make medicines, paint, and steel. The students recorded a list of some of the effects of burning coal.

Effects of Burning Coal	
<input type="radio"/>	1. Heat energy is released when used to make electricity.
<input type="radio"/>	2. Carbon dioxide gas is released and may cause global warming.
<input type="radio"/>	3. Other gases (sulfur dioxide, nitrogen oxide) are released, which cause acid rain.

The students investigated how acid rain affected two plants of the same size. Plant 1 received pure water and Plant 2 received water containing acid. All other conditions were kept the same. After growing for five weeks, Plant 2 was shorter than Plant 1.

Which statement best explains the different results?

- A. Plant 1 received fertilizer.
- B. Plant 1 received direct sunlight.
- C. Water containing acid slowed the growth of Plant 2.
- D. Water containing acid decreased the size of Plant 2.

Correct Answer

C. Water containing acid slowed the growth of Plant 2.

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